

10.7 Factoring Special Products

1. $9x^2 - 16$

2. $16x^2 - 36$



3. $x^2 + 8x + 16$

4. $x^2 + 10x + 25$



5. $x^2 - 12x + 36$

6. $x^2 - 6x + 9$



10.8 Factoring Using the Distributive Property

Factor:

1. $12m^4 - 15m^3$

$3m^3(4m - 5)$

2. $\underline{3}x^2 - 3x + 33$

$3(x^2 - x + 11)$

$_ + _ = -1$

$_ \cdot _ = 11$

$$3. \underline{6}x^2y^9 - 18\underline{x}^7y^3 + 2\underline{1}x^2y^4$$

$$3x^2y^3(2y^6 - 6x^5 + 7y)$$

$$4. 2y^2 - 32$$

$$2(y^2 - 16) \leftarrow$$

$$2 (y+4)(y-4)$$

$$6 \mid x^3 + 2x^2 \mid + 3x + 6 \mid$$

$$x^2(x+2) + 3(x+2)$$

$$(x^2+3)(x+2)$$

$$7 \mid x^3 - 2x^2 - 9x + 18 \mid$$

$$x^2(x-2) - 9(x-2)$$

$$(x^2-9)(x-2)$$

$$(x+3)(x-3)(x-2)$$

MIXED Review! Woohoo!

Factor Completely.

1. $33e^4 - 9e^9 + 12e^{11}$

2. $x^2 - 8x + 16$

3. $4p^4 - 100p^2$

4. $x^3 + 4x^2 + 6x + 24$

5. $x^3 + 2x^2 - 36x - 72$

6. $2x^2 - 3x - 2$

$$x^2 - 25 = 0$$

$$(x+5)(x-5) = 0$$

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$$x+5=0 \quad x-5=0$$

$$x=-5 \quad \text{OR} \quad x=5$$